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ABSTRACT

A 30-item questionnaire on attitudes about individualized instruction was administered to 31 high school principals, 42 teacher educators, 28 superintendents, and 39 elementary school principals, in Missouri. Results revealed that there was a fairly favorable overall belief that individualization of instruction holds promise. Most of the groups agreed fairly often on the survey items; in particular, the high rate of agreement among teacher educators and superintendents imply that a preservice program teaching prospective teachers about individualization of instruction may be a goal of both the school districts and the preparation institution and could possibly be easily implemented. This report presents implications for the profession and two appendices: (1) the School Climate Assessment of Learning Environments; and (2) a tabular display and analysis of survey answers. (CB)

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# READINESS FOR INDIVIDUALIZATION OF INSTRUCTION

## AN ASSESSMENT OF EDUCATIONAL BELIEFS

## AMONG FOUR GROUPS OF EDUCATORS

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SP 028 447

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JANUARY 1987

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"IT IS BELIEF SYSTEMS, NOT STRUCTURES, WHICH ULTIMATELY DRIVE ALL THAT WE DO IN SCHOOLS."

. . . . . .John H. Block

## INTRODUCTION

Interpretations and definitions of individualization of instruction have varied widely among educators and others. When pressed for a definition of individualization, some answers from the past come into focus: (1) you should meet the needs of the students in your classroom; (2) take the student, as God made him, and his last teacher left him, and teach from that point forward; (3) it is a process rather than a method; and (4) each student is unique and the school should attune the system to that uniqueness.

The above definitions have served a useful purpose in education but they have done little toward helping pre-service and in-service personnel formulate a specific and workable definition of individualization. Moreover, the above definitions may contribute little to the formulation or plan for implementing and sustaining a procedure for individualization of instruction.

With this in mind, the author devised the School Climate Assessment of Learning Environments (SCALE-I) (see Appendix I). The instrument consists of thirty Belief Statements about individualization. Taken as a whole, the thirty Belief Statements represent the author's definition of individualization

of instruction. The thirty Belief Statements are not a panacea or exhaustive but represent a systematic definition of individualization of instruction.

SCALE-I is an attitude type instrument (Likert method) consisting of thirty Belief Statements. All Belief Statements are stated in positive terms with strongly agree, agree, undecided, disagree, and strongly disagree choices. Strongly agree thru strongly disagree carry values of 5, 4, 3, 2, 1, respectively, with strongly agree or 5 being the most desirable response.

## PROCEDURE

During the Fall of 1986, 221 Missouri educators representing four distinct groups of professionals were polled using SCALE-I. The sample, based on 140 returned and useable questionnaires, consisted of 31 high school principals, 28 superintendents, 39 elementary school principals, and 42 teacher educators. See Table I. The administrators were located within a 65 mile radius of Missouri Southern State College. The teacher educators were selected from the 1985-86 membership list of the Missouri Association for Teacher Education (MACTE) and represented a state-wide sample of teacher educators.

Each of the four groups were asked, via the questionnaire, to respond to the 30 Belief Statements of SCALE-I. The respondents were asked to answer SCALE-I items in terms of the degree to

which they agreed or disagreed with each of the 30 items of the questionnaire. The directions indicated that SCALE-I should not be interpreted to indicate that the respondent's school was or was not doing what the statement narrated but only to what degree did they agree or disagree with the statements as written.

TABLE I

EDUCATORS IN THE SAMPLE

| | Questionnaires Sent | Returned | Return Percentage |
|---|---|---|---|
| High School Principals | 43 | 31 | 72 |
| Superintendents | 51 | 28 | 55 |
| Elem. School Principals | 60 | 39 | 65 |
| Teacher Educators | 67 | 42 | 63 |
| Totals | 221 | 140 | 63 |

SCALE-I data were analyzed using the statistic, Analysis of Variance (ANOVA). An F-Ratio was computed for each of the 30 Belief Statements. A comparison was made among the four groups of educators identified above. Moreover, a second statistic, a t-test of independent means was calculated in comparing each of the four groups against each other resulting in six different comparisons for significant differences.

Answers to the subsequent questions were sought in the study:

(1) Using ANOVA, do the four groups differ significantly

in relation to the 30 Belief Statements concerning individualization of instruction?

(2) Using the t-test of independent means, do the following educator groups differ significantly from each other in relation to the 30 Belief Statements and subsequently individualization of instruction?

(a) Do high school principals differ significantly from superintendents?

(b) Do high school principals differ significantly from elementary school principals?

(c) Do high school principals differ significantly from teacher educators?

(d) Do superintendents differ significantly from elementary school principals?

(e) Do superintendents differ significantly from teacher educators?

(f) Do elementary school principals differ significantly from teacher educators?

(3) What implications do the results of SCALE-I have for administrators, teachers, teacher educators, curriculum workers, and others interested in teaching and learning?

(4) Do the results of SCALE-I indicate a favorable school climate for implementation of individualization of instruction or an instructional management system?

## FINDINGS

Results of SCALE-I and analysis of data indicate that when the four groups of educators were compared using ANOVA, there was a significant difference in four of the thirty Belief Statements. Table II shows that significant differences occurred in Belief Statements 4, 13, 26, and 28. See Tables III and IV.

When the four groups of educators were compared to each other (resulting in six different comparisons) using a t-test of independent means, significant differences occurred in Belief Statements 1, 3, 4, 8, 11, 13, 14, 16, 18, 19, 22, 25, 26, 27, 28, and 29. Tables V thru X show the Belief Statements, means, and t-test results at the .05 level of significance and critical value of 1.67.

The comparison among the four educator groups resulted in thirty-two significant differences using the t-test of independent means. The following gives an overview of the Belief Statement items and number of significant differences per item.

| Item # | Differences | Item # | Differences |
|---|---|---|---|
| 1 | (3) | 18 | (2) |
| 3 | (3) | 19 | (1) |
| 4 | (3) | 22 | (1) |
| 8 | (1) | 25 | (1) |
| 11 | (1) | 26 | (2) |
| 13 | (2) | 27 | (3) |
| 14 | (3) | 28 | (2) |
| 16 | (2) | 29 | (2) |

TABLE II

COMPARISON OF MEANS AMONG GROUPS

| | BELIEF STATEMENT | HSP | SUP | ESP | TED | TOTAL MEAN | F RATIO | SIG |
|---|---|---|---|---|---|---|---|---|
| 1. | The unique learning styles of students are identified and used in building a student's learning program. | 3.42 | 4.00 | 3.97 | 4.02 | 3.87 | 2.62 | NS |
| 2. | The teaching style(s) of the teacher is matched with the learning style(s) of the student. | 3.40 | 3.32 | 3.67 | 3.55 | 3.50 | .64 | NS |
| 3. | Student interests are considered when building a unit or lesson plan. | 3.74 | 3.71 | 3.79 | 4.21 | 3.89 | 2.32 | NS |
| 4. | A student-paced instructional plan is used more often than a group paced instructional plan. | 2.52 | 3.23 | 3.03 | 3.40 | 3.07 | 3.58 | * |
| 5. | Instructional objectives used when planning instruction for a student or a group of students. | 4.48 | 4.64 | 4.46 | 4.45 | 4.50 | .47 | NS |
| 6. | Instructional objectives used for students that range from easiest to most difficult. | 3.94 | 4.07 | 4.00 | 3.79 | 3.94 | .46 | NS |
| 7. | The size of the groups in the classroom is varied. For example, students may be found working in different sized groups such as 1-1, 1-8, 1-15, 0-6, or 2-15. | 3.97 | 3.96 | 4.05 | 4.20 | 4.06 | .58 | NS |
| 8. | Content or subject matter is varied so as to match student learning style, ability and interest. | 3.32 | 3.68 | 3.72 | 3.93 | 3.69 | 1.92 | NS |
| 9. | Assessment procedures are varied in the classroom. For example, much use is made of the following assessment procedures: performance tests, observations, paper and pencil tests, and work samples. | 4.23 | 4.45 | 4.26 | 4.29 | 4.29 | .50 | NS |
| 10. | Differentiated assessment techniques have resulted in different student grouping patterns in the classroom. | 3.45 | 3.79 | 3.63 | 3.71 | 3.65 | .62 | NS |

*Significant at the .05 level, F-Ratio 2.68, Degrees of Freedom: 3 and 136.
NS=Not Significant

HSP=High School Principals
SUP=Superintendents
ESP=Elementary Principals
TED=Teacher Educators

| | BELIEF STATEMENT | HSP | SUP | ESP | TED | TOTAL MEAN | F RATIO | SIG |
|---|---|---|---|---|---|---|---|---|
| 11. | The learning environment is varied for students, both inside and outside of the classroom. | 3.81 | 4.14 | 3.89 | 4.07 | 3.98 | 1.04 | NS |
| 12. | The teacher in the classroom knows all students by their first names and is concerned about their individual progress toward established goals of learning. | 4.58 | 4.64 | 4.67 | 4.69 | 4.65 | .31 | NS |
| 13. | Various helpers are used in the classroom such as parent volunteers, student teachers, peer tutors, clerical aides, older students, and instructional aides. | 3.40 | 3.93 | 3.84 | 4.19 | 3.87 | 3.90 | * |
| 14. | Learning prescriptions are frequently written or used for individal students or groups of students. | 3.39 | 3.82 | 3.29 | 3.71 | 3.55 | 2.28 | NS |
| 15. | Individual progress charts are maintained for each student in the class. | 3.77 | 4.07 | 3.83 | 3.79 | 3.85 | .61 | NS |
| 16. | A student's schedule is varied according to time, space, and instructional materials. | 3.32 | 3.89 | 3.63 | 3.90 | 3.71 | 2.49 | NS |
| 17. | A learning cycle is frequently used for individual students or groups of students based on pre-assessment, setting objectives, identification of resources and activities, provision for instruction and post-assessment. | 3.58 | 3.93 | 3.92 | 3.86 | 3.83 | .87 | NS |
| 18. | Learning activities are selected by the teacher which allow for discovery by students. | 3.84 | 4.22 | 3.95 | 4.19 | 4.05 | 1.89 | NS |
| 19. | Students sometimes select their own learning objectives and activities. | 3.48 | 3.79 | 3.64 | 4.00 | 3.74 | 1.80 | NS |
| 20. | Students can identify or state the objectives on which they are working or progressing. | 4.03 | 3.88 | 3.95 | 4.02 | 3.98 | .17 | NS |
| 21. | The teacher recognizes that students are more different than alike. | 3.97 | 4.04 | 4.10 | 4.02 | 4.04 | .12 | NS |

| | BELIEF STATEMENT | HSP | SUP | ESP | TED | TOTAL MEAN | F RATIO | SIG |
|---|---|---|---|---|---|---|---|---|
| 22. | A good home-school communications network is maintained by the teacher. | 4.13 | 4.36 | 4.51 | 4.24 | 4.31 | 1.43 | NS |
| 23. | A good home-school communications network is maintained by the building principal. | 4.19 | 4.41 | 4.36 | 4.15 | 4.27 | .83 | NS |
| 24. | Students are allowed to experience some success every day. | 4.16 | 4.45 | 4.46 | 4.45 | 4.39 | 1.23 | NS |
| 25. | Learning centers or stations are used in teaching various concepts. | 3.58 | 3.92 | 4.10 | 3.93 | 3.90 | 1.99 | NS |
| 26. | Instructional materials are varied. For example, appropriate materials are available for the slow learner as well as the fast learner. | 3.97 | 4.52 | 4.23 | 4.41 | 4.28 | 2.78 | * |
| 27. | Activities are planned which allow students to work at their success levels rather than at their frustration levels. | 3.71 | 4.21 | 4.13 | 4.21 | 4.08 | 2.25 | NS |
| 28. | When a student completes an assignment, a test, or other task, the teacher frequently asks the question, "What does this student need to learn or do next?" | 3.38 | 4.00 | 3.75 | 4.00 | 3.81 | 2.69 | * |
| 29. | In our school, a commitment has been made to teach students rather than subjects. | 4.00 | 4.36 | 4.18 | 4.38 | 4.23 | 1.66 | NS |
| 30. | Teachers in our school can identify resources, both people and materials, that can help them personalize and individualize instruction for students. | 4.03 | 4.14 | 4.18 | 4.32 | 4.18 | .81 | NS |

| | HSP | SUP | ESP | TED | TOTAL MEAN |
|---|---|---|---|---|---|
| OVERALL MEAN SCORES = | 3.76 | 4.05 | 3.97 | 4.07 | 3.97 |
| N = | 31 | 28 | 39 | 42 | |

TABLE III

COMPARISON OF OVERALL MEAN SCORES
AMONG THE FOUR GROUPS
RANK ORDER

| GROUP | OVERALL MEAN SCORE - 30 ITEMS |
|---|---|
| 1. Teacher Educators | 4.07 |
| 2. Superintendents | 4.05 |
| 3. Elementary School Principals | 3.97 |
| 4. High School Principals | 3.76 |

TABLE IV

SIGNIFICANT DIFFERENCES
AMONG THE FOUR GROUPS
ANOVA

| ITEM NO. | BELIEF STATEMENT | F-RATIO |
|---|---|---|
| 4 | Student Paced PLan | 3.58 |
| 13 | Helpers Are Varied | 3.90 |
| 26 | Materials Are Varied | 2.78 |
| 28 | What Does Student Do Next? | 2.69 |

*Significant at .05 Level, F-Ratio, 2.68, df=3 and 136

Table II gives the overall mean score for each of the four groups of educators. Moreover, Table II gives an overall mean for each Belief Statement item. Note than in rank order, teacher educators had the highest total mean score followed by superintendents, elementary school principals, and high school principals. See Table III.

When high school principals were compared to superintendents in the study using a t-test of independent means, 11 of 30 Belief Statements indicated a significant difference. See Table V for an overview of the differences.

TABLE V

SIGNIFICANT DIFFERENCES
HIGH SCHOOL PRINCIPALS (HSP)
COMPARED TO
SUPERINTENDENTS (SUP)

| Item No. | Belief Statement | Mean HSP | Mean SUP | t-Test* |
|---|---|---|---|---|
| 1 | LEARNING STYLES IDED/USED | 3.42 | 4.00 | 2.14 |
| 4 | STUDENT PACED PLAN | 2.52 | 3.23 | 2.61 |
| 11 | LEARNING ENVIRONMENT VARIED | 3.81 | 4.14 | 1.83 |
| 13 | HELPERS ARE VARIED | 3.40 | 3.93 | 2.02 |
| 14 | PRESCRIPTIONS USED | 3.39 | 3.82 | 1.91 |
| 16 | SCHEDULE IS VARIED | 3.32 | 3.89 | 2.30 |
| 18 | ALLOWS FOR DISCOVERY | 3.84 | 4.22 | 2.39 |
| 26 | INST MATERIALS VARIED | 3.97 | 4.52 | 2.62 |
| 27 | SUCCESS LEVELS NOT FRUSTRATION LVLS | 3.71 | 4.21 | 2.18 |
| 28 | WHAT DOES STUDENT NEED TO DO NEXT? | 3.38 | 4.00 | 2.47 |
| 29 | TEACH STUDENTS NOT SUBJECTS | 4.00 | 4.36 | 1.87 |

*Significant at .05 Level, 1.67.

HSP=High School Principals
SUP=Superintendents

NOTE: The Above Belief Statements have been shortened. For the Full Statement, Refer to Table II.

When high school principals were compared to elementary school principals using a t-test of independent means, 5 of 30 Belief Statements showed a significant difference. See Table VI for a comparison between the two groups of principals.

TABLE VI

SIGNIFICANT DIFFERENCES
HIGH SCHOOL PRINCIPALS (HSP)
COMPARED TO
ELEMENTARY SCHOOL PRINCIPALS (ESP)

| Item No. | Belief Statement | Mean HSP | Mean ESP | t-Test* |
|---|---|---|---|---|
| 1 | LEARNING STYLES IDENTIFIED | 3.42 | 3.97 | 2.04 |
| 4 | STUDENT PACED PLAN | 2.52 | 3.03 | 1.79 |
| 22 | HOME-SCHOOL COMMO--TEACHER | 4.13 | 4.51 | 1.96 |
| 25 | LEARNING CENTERS USED | 3.58 | 4.10 | 2.50 |
| 27 | SUCCESS LEVELS NOT FRUSTRATION LVLS | 3.71 | 4.13 | 1.87 |

*Significant at .05 Level, 1.67

HSP=High School Principals
ESP=Elementary Principals

NOTE: The Above Belief Statements have been shortened. For the Full Statement, refer to Table II.

When high school principals were compared to teacher educators in the study using a t-test of independent means, 12 of 30 Belief Statements indicated a significant difference. See Table VII for significant differences between the two above groups.

TABLE VII

SIGNIFICANT DIFFERENCES
HIGH SCHOOL PRINCIPALS (HSP)
COMPARED TO
TEACHER EDUCATORS (TED)

| Item No. | Belief Statement | Mean HSP | Mean TED | t-Test* |
|---|---|---|---|---|
| 1 | LEARNING STYLES IDENTIFIED | 3.42 | 4.02 | 2.29 |
| 3 | STUDENT INTERESTS CONSIDERED | 3.74 | 4.21 | 2.19 |
| 4 | STUDENT PACED PLAN | 2.52 | 3.40 | 3.13 |
| 8 | CONTENT VARIED | 3.32 | 3.93 | 2.30 |
| 13 | HELPERS ARE VARIED | 3.40 | 4.19 | 3.47 |
| 16 | SCHEDULE IS VARIED | 3.32 | 3.90 | 2.24 |
| 18 | ALLOWS FOR DISCOVERY | 3.84 | 4.19 | 1.83 |
| 19 | STUDENTS SELECT OBJECTIVES | 3.48 | 4.00 | 2.06 |
| 26 | MATERIALS ARE VARIED | 3.97 | 4.41 | 2.20 |
| 27 | SUCCESS LEVELS NOT FRUSTRATION LVLS | 3.71 | 4.21 | 2.10 |
| 28 | WHAT DOES STUDENT DO NEXT? | 3.38 | 4.00 | 2.39 |
| 29 | TEACH STUDENTS NOT SUBJECTS | 4.00 | 4.38 | 2.07 |

*Significant at .05 Level, 1.67.

HSP=High School Principals
TED=Teacher Educators

NOTE: The Above Belief Statements have been shortened. For the Full Statement, Refer to Table II.

When superintendents were compared to elementary school principals, significant differences, using the t-test of independent means, occurred in only one of the thirty Belief Statements. See Table VIII.

TABLE VIII

SIGNIFICANT DIFFERENCES
SUPERINTENDENTS (SUP)
COMPARED TO
ELEMENTARY SCHOOL PRINCIPALS (ESP)

| Item No. | Belief Statement | Mean SUP | Mean ESP | t-Test* |
|---|---|---|---|---|
| 14 | LEARNING PRESCRIPTIONS ARE FREQUENTLY WRITTEN OR USED FOR INDIVIDUAL STUDENTS OR GROUPS OF STUDENTS | 3.82 | 3.29 | 2.37 |

*Significant at .05 Level, 1.67.

SUP=Superintendents
ESP=Elementary Principals

When superintendents were compared to teacher educators, using a t-test of independent means, significant differences occurred in only one of the thirty Belief Statements. See Table IX.

TABLE IX

SIGNIFICANT DIFFERENCES
SUPERINTENDENTS (SUP)
COMPARED TO
TEACHER EDUCATORS (TED)

| Item No. | Belief Statement | Mean SUP | Mean TED | t-Test* |
|---|---|---|---|---|
| 3 | STUDENT INTERESTS ARE CONSIDERED WHEN BUILDING A UNIT OR LESSON PLAN | 3.71 | 4.21 | 2.33 |

*Significant at .05 Level, 1.67.

SUP=Superintendents
TED=Teacher Educators

When elementary school principals were compared to teacher educators, using a t-test of independent means, significant differences were noted in two of the thirty Belief Statements. Table X gives a comparison between the two groups.

TABLE X

SIGNIFICANT DIFFERENCES
ELEMENTARY SCHOOL PRINCIPALS (ESP)
COMPARED TO
TEACHER EDUCATORS (TED)

| Item No. | Belief Statement | Mean ESP | Mean TED | t-Test* |
|---|---|---|---|---|
| 3 | STUDENT INTERESTS ARE CONSIDERED WHEN BUILDING A UNIT OR LESSON PLAN | 3.79 | 4.21 | 1.96 |
| 14 | LEARNING PRESCRIPTIONS ARE FREQUENTLY WRITTEN OR USED FOR INDIVIDUAL STUDENTS OR GROUPS OF STUDENTS | 3.29 | 3.71 | 1.80 |

*Significant at .05 Level, 1.67.

ESP=Elementary Principals
TED=Teacher Educators

When observing and studying Table II, it is interesting to note which one of the four groups of educators had the highest mean score per individual Belief Statement item. For example, high school principals led in only Belief Statement number 20. That is, they had the highest mean score for that Belief Statement.

Superintendents led or tied in 13 of the 30 Belief Statements. Elementary school principals led in 5 of the 30 while teacher educators led or tied in 13 of the 30 Belief Statements. See Table XI for an overview of the four groups mean scores by item number 1 through 30. Also, see Figures 1 and 2.

TABLE XI

HIGHEST MEAN SCORE
PER BELIEF STATEMENT ITEM
AMONG THE FOUR GROUPS OF EDUCATORS

| Item No. | Belief Statement | Educator Group | Item Mean Score |
|---|---|---|---|
| 1. | LEARNING STYLES IDENTIFIED | TED | 4.02 |
| 2. | TEACHING/LEARNING STYLES MATCHED | ESP | 3.67 |
| 3. | STUDENT INTERESTS CONSIDERED | TED | 4.21 |
| 4. | STUDENT PACED PLAN | TED | 3.40 |
| 5. | USE OF OBJECTIVES | SUP | 4.64 |
| 6. | OBJECTIVES-EASY TO DIFFICULT | SUP | 4.07 |
| 7. | SIZE OF GROUP VARIED | TED | 4.20 |
| 8. | CONTENT VARIED | TED | 3.93 |
| 9. | ASSESSMENT VARIED | SUP | 4.45 |
| 10. | DIFFERENT GROUPINGS | SUP | 3.79 |
| 11. | ENVIRONMENT VARIED | SUP | 4.14 |
| 12. | TEACHER KNOWS STUDENTS | TED | 4.69 |
| 13. | HELPERS ARE VARIED | TED | 4.19 |
| 14. | PRESCRIPTIONS USED | SUP | 3.82 |
| 15. | PROGRESS CHARTS | SUP | 4.07 |
| 16. | SCHEDULE IS VARIED | TED | 3.90 |
| 17. | LEARNING CYCLE USED | SUP | 3.93 |
| 18. | ALLOWS FOR DISCOVERY | SUP | 4.22 |
| 19. | STUDENTS SELECT OBJECTIVES | TED | 4.00 |
| 20. | STUDENTS CAN STATE OBJECTIVES | HSP | 4.03 |
| 21. | MORE DIFFERENT THAN ALIKE | ESP | 4.10 |
| 22. | HOME-SCHOOL COMMO, TEACHER | ESP | 4.51 |
| 23. | HOME-SCHOOL COMMO, PRINCIPAL | SUP | 4.41 |
| 24. | EXPERIENCE SUCCESS DAILY | ESP | 4.46 |
| 25. | LEARNING CENTERS USED | ESP | 4.10 |
| 26. | MATERIALS ARE VARIED | SUP | 4.52 |
| 27. | SUCCESS LEVELS NOT FRUSTRATION LEVELS | SUP,TED (t) | 4.21 |
| 28. | WHAT DOES STUDENT DO NEXT? | SUP,TED (t) | 4.00 |
| 29. | TEACH STUDENTS NOT SUBJECTS | TED | 4.38 |
| 30. | IDENTIFY RESOURCES | TED | 4.32 |

HSP=High School Principals; SUP=Superintendents
ESP=Elementary Principals; TED=Teacher Educators
(t)=tie

FIGURE 1
PROFILE OF MEAN SCORES FOR HSP, SUP, and ESP

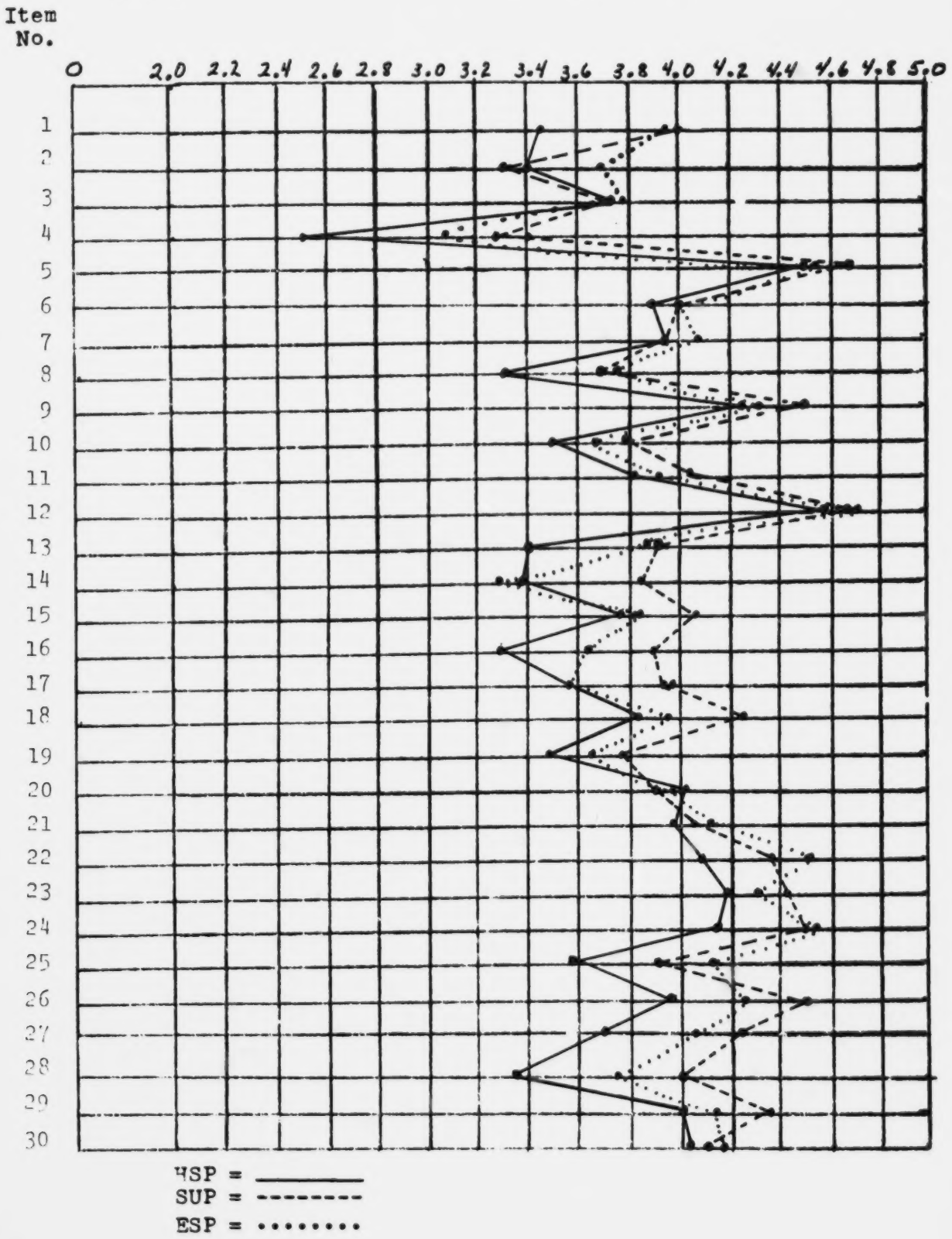
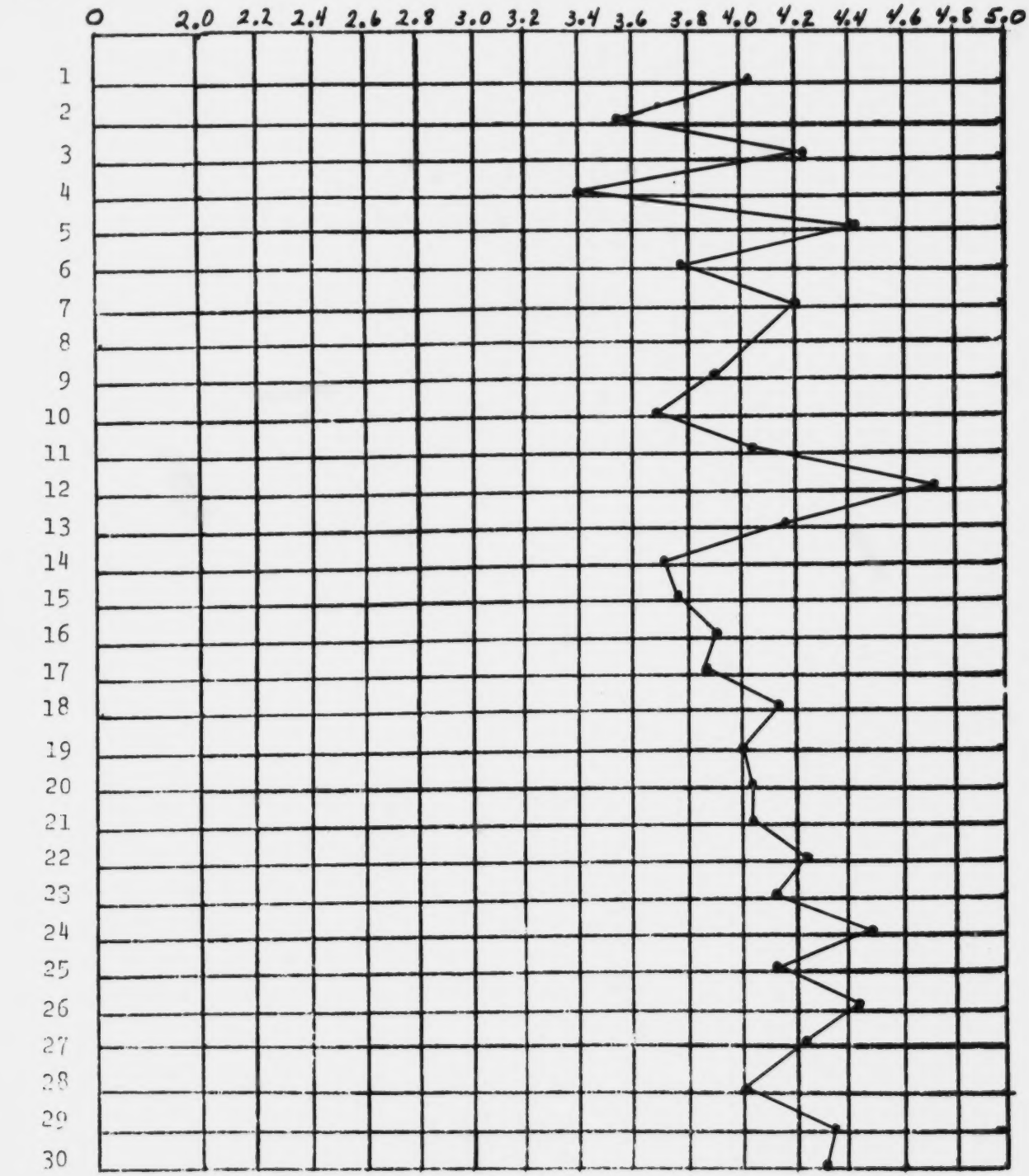


FIGURE 2
PROFILE OF MEAN SCORES FOR TED




TED = _____

## SUMMARY

A thirty item instrument, representing Belief Statements about individualization of instruction, School Climate Assessment of Learning Environments (SCALE-I) was administered to 140 educators, representing four educator groups, during the Fall of 1986. The 30 items from SCALE-I represented the author's definition of individualization of instruction.

Included in the sample for the study were 31 high school principals, 28 superintendents, and 39 elementary school principals. All of the above educators were from southwest Missouri school districts located within a radius of 65 miles from Missouri Southern State College. The fourth group consisted of 42 teacher educators selected state-wide from the Missouri Association of Colleges for Teacher Education (MACTE) organization.

Two statistics, Analysis of Variance and the t-test for independent means were utilized in analyzing the data for this study. Findings from the study were:

(1) Comparisons among high school principals, superintendents, elementary school principals, and teacher educators indicated significance in 4 of 30 Belief Statements at the .05 level, using the F-Ratio.

(2) Overall means from SCALE-I, in rank order, indicated that teacher educators had the highest mean score 4.07, followed by superintendents with a 4.05 mean. Elementary school

principals had a 3.97 mean score. High school principals ranked fourth with a 3.76 overall mean score.

(3) When comparing high school principals to superintendents, 11 of 30 Belief Statements from SCALE-I indicated significance at the .05 level, using the t-test for independent means.

(4) Using the same procedure outlined in number three above, high school principals differed significantly from elementary school principals in 5 of 30 Belief Statements.

(5) When high school principals were compared to teacher educators using the t-test for indpendent means, 12 of 30 Belief Statement indicated significant differences.

(6) Superintendents compared to elementary school principals differed signficantly in only 1 of the 30 Belief Statements, using the t-test of independent means.

(7) When superintendents were compared to teacher educators using the t-test of independent means, only 1 of the 30 Belief Statements indicated a significant difference.

(8) When elementary school principals were compared to teacher educators, 2 of the 30 Belief Statements showed a significant difference using the t-test of independent means.

(9) When analyzing the 30 Belief Statements from SCALE-I by single item numbers, high school principals led in mean score on only one of the 30 Belief Statements. Superintendents led or tied in 13 of the 30 Belief Statements while elementary school

principals led in 5 of the 30. Teacher educators led or tied in 13 of the 30 Belief Statements.

## IMPLICATIONS FOR ADMINISTRATORS, CURRICULUM WORKERS, TEACHERS, TEACHER EDUCATORS AND OTHERS

The implications of this study indicate that based on the fairly favorable overall beliefs concerning individualized instruction and the total mean score of 3.97 for the four groups of educators studied show that the likelihood of implementation of individualization holds promise for the population of the study. The likelihood of implementation, hopefully, is strengthened by the overall mean score coming from the superintendent's group. With little doubt, it is the superintendent who is the curriculum leader within a school district.

The extent of agreement in relation to the 30 Belief Statements is encouraging. Following up on identified beliefs and putting them into practice may be more difficult and challenging. However, to return to John Block's quote which appeared earlier in this report, "It is belief systems, not structures, which ultimately drive all that we do in schools." This writer agrees. There is a congruence between what we believe concerning schooling and what we actually do in schools. If we believe in instructional management or mastery learning, for example, there is probably a strong indication that educators will implement such a strategy for teaching and learning.

The high degree of agreement by the teacher educator group in this study coupled with the high degree of agreement by

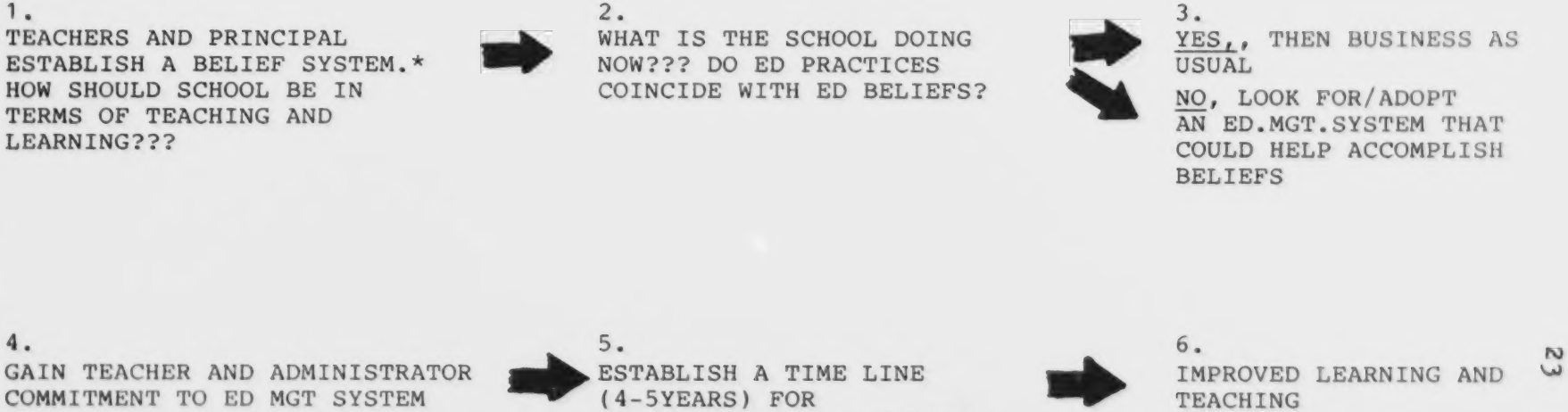
the superintendent's group indicates that, hopefully, a commitment to an individualized educational program could be accomplished within schools and school districts. If strong pre-service teacher education programs model strategies for individualized instruction and top school administrator commitment to an individualized program come together, the future may be bright for such programs as individualization of instruction or an instructional management system.

Figure 3 illustrates a belief system strategy as it could be utilized within a school or school district and incorporates the Belief Statement concept as illustrated in the SCALE-I questionnaire. See reference, The We Agree Workshop, in selected references.

For this study, SCALE-I proved to be a viable instrument for detecting a positive climate for an individualized program of instruction. Hopefully, it could be used in the future with other educator populations.

FIGURE 3

ESTABLISHING BELIEFS


1.
TEACHERS AND PRINCIPAL ESTABLISH A BELIEF SYSTEM.* HOW SHOULD SCHOOL BE IN TERMS OF TEACHING AND LEARNING???
2.
WHAT IS THE SCHOOL DOING NOW??? DO ED PRACTICES COINCIDE WITH ED BELIEFS?
3.
YES,, THEN BUSINESS AS USUAL
NO, LOOK FOR/ADOPT AN ED.MGT.SYSTEM THAT COULD HELP ACCOMPLISH BELIEFS
4.
GAIN TEACHER AND ADMINISTRATOR COMMITMENT TO ED MGT SYSTEM
5.
ESTABLISH A TIME LINE (4-5YEARS) FOR IMPLEMENTATION OF BELIEF SYSTEM VIA ED.MGT.PLAN
6.
IMPROVED LEARNING AND TEACHING

*SUGGESTION:

USE ITEMS FROM SCALE-I
IN BUILDING BELIEF SYSTEM

APPENDIX I

SCHOOL CLIMATE ASSESSMENT OF LEARNING ENVIRONMENTS
SCALE-I

DIRECTIONS: Please read the following statements and mark your one best answer for each item using the key provided.

KEY

5=Strongly Agree
4=Agree
3=Undecided
2=Disagree
1=Strongly Disagree

1. The unique learning styles of students are identified and used in building a student's learning program.

   5 4 3 2 1

2. The teaching style(s) of the teacher is matched with the learning style(s) of the students.

   5 4 3 2 1

3. Student interests are considered when building a unit or lesson plan.

   5 4 3 2 1

4. A student-paced instructional plan is used more often than a group-paced instructional plan.

   5 4 3 2 1

5. Instructional objectives are used when planning instruction for a student or a group of students.

   5 4 3 2 1

6. Instructional objectives ranging from easiest to most difficult are used for students.

   5 4 3 2 1

7. The size of groups in the classroom is varied. For example, students may be found working in different sized groups such as 1-1, 1-8, 1-15, 0-6, or 2-15.

5 4 3 2 1

8. Content or subject matter is varied so as to match student learning style, ability and interest.

5 4 3 2 1

9. Assessment procedures are varied in the classroom. For example, much use is made of the following assessment procedures: performance tests, observations, paper-and-pencil tests and work samples.

5 4 3 2 1

10. Differentiated assessment techniques have resulted in different student grouping patterns in the classroom.

5 4 3 2 1

11. The learning environment is varied for students, both inside and outside of the classroom.

5 4 3 2 1

12. The teacher in the classroom knows all students by their first names and is concerned about their individual progress toward established goals of learning.

5 4 3 2 1

13. Various helpers are used in the classroom--parent volunteers, student teachers, peer tutors, clerical aides, older students, and instructional aides.

5 4 3 2 1

14. Learning prescriptions are frequently written or used for individual students or groups of students.

5 4 3 2 1

15. Individual progress charts are maintained for each student in the class.

5 4 3 2 1

16. A student's schedule is varied according to time, space and instructional materials.

5 4 3 2 1

17. A learning cycle is frequently used for individual students or groups of students based on pre-assessment; setting objectives, identifying resources and activities providing instruction and conducting a post-assessment.

5 4 3 2 1

18. Learning activities selected by the teacher allow for discovery by students.

5 4 3 2 1

19. Student sometimes select their own learning objectives and activities.

5 4 3 2 1

20. Students can identify or state the objectives on which they are working or progressing.

5 4 3 2 1

21. The teacher recognizes that students are more different than alike.

5 4 3 2 1

22. A good home-school communications network is maintained by the teacher.

5 4 3 2 1

23. A good home-school communications network is maintained by the building principal.

5 4 3 2 1

24. Students are allowed to experience some success every day.

5 4 3 2 1

25. Learning centers or stations are used in teaching various concepts.

5 4 3 2 1

26. Instructional materials are varied. For example, appropriate materials are available for the slow learner as well as the fast learner.

5 4 3 2 1

27. Activities which allow students to work at their success levels rather than at their frustration levels are planned.

5 4 3 2 1

28. When a student completes an assignment, a test or other task, the teacher frequently asks the question, "What does this student need to learn or do next?"

5 4 3 2 1

29. In our school, a commitment has been made to teach students instead of subjects.

5 4 3 2 1

30. Teachers in our school can identify resources, both people and materials, that can help personalize and individualize instruction for students.

5 4 3 2 1

## APPENDIX - II

### t-TEST INDEPENDENT MEANS

.05 Level, 1.67

| | | DF | t | SIGNIFICANCE |
|---|---|---|---|---|
| ITEM #1 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 2.14 | * |
| | HSP AND ESP | 68 | 2.04 | * |
| | HSP AND TED | 71 | 2.29 | * |
| | SUP AND ESP | 65 | .11 | NS |
| | SUP AND TED | 68 | 1.08 | NS |
| | ESP AND TED | 79 | .22 | NS |
| ITEM #2 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | .28 | NS |
| | HSP AND ESP | 67 | 1.01 | NS |
| | HSP AND TED | 70 | .51 | NS |
| | SUP AND ESP | 65 | 1.42 | NS |
| | SUP AND TED | 68 | .83 | NS |
| | ESP AND TED | 79 | .48 | NS |
| ITEM #3 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | .11 | NS |
| | HSP AND ESP | 68 | .22 | NS |
| | HSP AND TED | 71 | 2.19 | * |
| | SUP AND ESP | 65 | .33 | NS |
| | SUP AND TED | 68 | 2.33 | * |
| | ESP AND TED | 79 | 1.96 | * |
| ITEM #4 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 55 | 2.61 | * |
| | HSP AND ESP | 66 | 1.79 | * |
| | HSP AND TED | 71 | 3.13 | * |
| | SUP AND ESP | 61 | .69 | NS |
| | SUP AND TED | 66 | .59 | NS |
| | ESP AND TED | 77 | 1.31 | NS |
| ITEM #5 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.22 | NS |
| | HSP AND ESP | 68 | .16 | NS |
| | HSP AND TED | 71 | .16 | NS |
| | SUP AND ESP | 65 | 1.25 | NS |
| | SUP AND TED | 68 | .94 | NS |
| | ESP AND TED | 79 | .04 | NS |

| | | DF | t | SIGNIFICANCE |
|---|---|---|---|---|
| ITEM #6 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | .62 | NS |
| | HSP AND ESP | 68 | .27 | NS |
| | HSP AND TED | 71 | .53 | NS |
| | SUP AND ESP | 65 | .31 | NS |
| | SUP AND TED | 68 | 1.01 | NS |
| | ESP AND TED | 79 | .78 | NS |
| ITEM #7 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.89 | NS |
| | HSP AND ESP | 67 | .45 | NS |
| | HSP AND TED | 70 | 1.14 | NS |
| | SUP AND ESP | 64 | .41 | NS |
| | SUP AND TED | 67 | 1.04 | NS |
| | ESP AND TED | 77 | .67 | NS |
| ITEM #8 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.37 | NS |
| | HSP AND ESP | 68 | 1.55 | NS |
| | HSP AND TED | 71 | 2.30 | * |
| | SUP AND ESP | 65 | .16 | NS |
| | SUP AND TED | 68 | .95 | NS |
| | ESP AND TED | 79 | .85 | NS |
| ITEM #9 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | 1.46 | NS |
| | HSP AND ESP | 68 | .20 | NS |
| | HSP AND TED | 71 | .30 | NS |
| | SUP AND ESP | 64 | 1.28 | NS |
| | SUP AND TED | 67 | .78 | NS |
| | ESP AND TED | 79 | .16 | NS |
| ITEM #10 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.49 | NS |
| | HSP AND ESP | 67 | .76 | Ns |
| | HSP AND TED | 71 | 1.06 | Ns |
| | SUP AND ESP | 64 | .64 | NS |
| | SUP AND TED | 68 | .28 | NS |
| | ESP AND TED | 78 | .33 | Ns |

| | | DF | t | SIGNIFICANCE |
|---|---|---|---|---|
| ITEM #11 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.83 | * |
| | HSP AND ESP | 66 | .38 | NS |
| | HSP AND TED | 71 | 1.26 | NS |
| | SUP AND ESP | 63 | 1.21 | NS |
| | SUP AND TED | 68 | .37 | NS |
| | ESP AND TED | 77 | .83 | NS |
| ITEM #12 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | .45 | NS |
| | HSP AND ESP | 68 | .69 | NS |
| | HSP AND TED | 71 | .91 | NS |
| | SUP AND ESP | 65 | .20 | NS |
| | SUP AND TED | 68 | .41 | Ns |
| | ESP AND TED | 79 | .23 | NS |
| ITEM #13 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 55 | 2.02 | * |
| | HSP AND ESP | 65 | 1.62 | NS |
| | HSP AND TED | 70 | 3.47 | * |
| | SUP AND ESP | 62 | .35 | NS |
| | SUP AND TED | 67 | 1.29 | NS |
| | ESP AND TED | 77 | 1.62 | NS |
| ITEM #14 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.91 | * |
| | HSP AND ESP | 67 | .40 | NS |
| | HSP AND TED | 71 | 1.32 | NS |
| | SUP AND ESP | 64 | 2.37 | * |
| | SUP AND TED | 68 | .46 | NS |
| | ESP AND TED | 78 | 1.80 | * |
| ITEM #15 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | 1.27 | NS |
| | HSP AND ESP | 66 | .26 | NS |
| | HSP AND TED | 71 | .08 | NS |
| | SUP AND ESP | 62 | 1.03 | NS |
| | SUP AND TED | 67 | 1.25 | NS |
| | ESP AND TED | 77 | .23 | NS |

| | | DF | t | SIGNIFICANCE |
|---|---|---|---|---|
| ITEM # 16 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 54 | 2.30 | * |
| | HSP AND ESP | 64 | 1.26 | NS |
| | HSP AND TED | 68 | 2.24 | * |
| | SUP AND ESP | 64 | 1.24 | NS |
| | SUP AND TED | 68 | .05 | NS |
| | ESP AND TED | 78 | 1.23 | NS |
| ITEM # 17 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.43 | NS |
| | HSP AND ESP | 66 | 1.43 | NS |
| | HSP AND TED | 71 | 1.12 | NS |
| | SUP AND ESP | 63 | .04 | NS |
| | SUP AND TED | 68 | .29 | NS |
| | ESP AND TED | 77 | .27 | NS |
| ITEM # 18 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | 2.39 | * |
| | HSP AND ESP | 68 | .61 | NS |
| | HSP AND TED | 71 | 1.83 | * |
| | SUP AND ESP | 64 | 1.49 | NS |
| | SUP AND TED | 67 | 1.60 | NS |
| | ESP AND TED | 79 | 1.24 | NS |
| ITEM #19 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.31 | NS |
| | HSP AND ESP | 68 | .69 | NS |
| | HSP AND TED | 71 | 2.06 | * |
| | SUP AND ESP | 65 | .64 | NS |
| | SUP AND TED | 68 | .85 | NS |
| | ESP AND TED | 79 | 1.52 | NS |
| ITEM # 20 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 54 | .62 | NS |
| | HSP AND ESP | 68 | .39 | NS |
| | HSP AND TED | 70 | .03 | NS |
| | SUP AND ESP | 62 | .31 | NS |
| | SUP AND TED | 64 | .58 | NS |
| | ESP AND TED | 78 | .35 | NS |

| | | DF | t | SIGNIFICANCE |
|---|---|---|---|---|
| ITEM # 21 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | .31 | NS |
| | HSP AND ESP | 68 | .64 | NS |
| | HSP AND TED | 71 | .26 | NS |
| | SUP AND ESP | 65 | .28 | NS |
| | SUP AND TED | 68 | .05 | NS |
| | ESP AND TED | 79 | .36 | NS |
| ITEM # 22 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 57 | 1.10 | NS |
| | HSP AND ESP | 68 | 1.96 | * |
| | HSP AND TED | 71 | .50 | NS |
| | SUP AND ESP | 65 | .92 | NS |
| | SUP AND TED | 68 | .59 | NS |
| | ESP AND TED | 79 | 1.48 | NS |
| ITEM # 23 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | 1.26 | NS |
| | HSP AND ESP | 68 | .92 | NS |
| | HSP AND TED | 70 | .22 | NS |
| | SUP AND ESP | 64 | .28 | NS |
| | SUP AND TED | 66 | 1.21 | NS |
| | ESP AND TED | 78 | 1.05 | NS |
| ITEM # 24 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 56 | 1.45 | NS |
| | HSP AND ESP | 68 | 1.63 | NS |
| | HSP AND TED | 71 | 1.49 | NS |
| | SUP AND ESP | 64 | .11 | NS |
| | SUP AND TED | 67 | .04 | NS |
| | ESP AND TED | 79 | .05 | NS |
| ITEM # 25 | | | | |
| BETWEEN: | | | | |
| | HSP AND SUP | 55 | 1.42 | NS |
| | HSP AND ESP | 68 | 2.50 | * |
| | HSP AND TED | 71 | 1.48 | NS |
| | SUP AND ESP | 63 | .92 | NS |
| | SUP AND TED | 66 | .02 | NS |
| | ESP AND TED | 79 | .88 | NS |

ITEM # 26

| BETWEEN: | DF | t | SIGNIFICANCE |
|---|---|---|---|
| HSP AND SUP | 56 | 2.62 | * |
| HSP AND ESP | 68 | 1.23 | NS |
| HSP AND TED | 70 | 2.20 | * |
| SUP AND ESP | 64 | 1.54 | NS |
| SUP AND TED | 66 | .60 | NS |
| ESP AND TED | 78 | 1.02 | NS |

ITEM # 27

| BETWEEN: | | | |
|---|---|---|---|
| HSP AND SUP | 57 | 2.18 | * |
| HSP AND ESP | 68 | 1.87 | * |
| HSP AND TED | 71 | 2.10 | * |
| SUP AND ESP | 65 | .45 | NS |
| SUP AND TED | 68 | .00 | NS |
| ESP AND TED | 79 | .42 | NS |

ITEM #28

| BETWEEN: | | | |
|---|---|---|---|
| HSP AND SUP | 46 | 2.47 | * |
| HSP AND ESP | 48 | 1.34 | NS |
| HSP AND TED | 66 | 2.39 | * |
| SUP AND ESP | 44 | 1.09 | NS |
| SUP AND TED | 62 | .00 | NS |
| ESP AND TED | 64 | .99 | NS |

ITEM #29

| BETWEEN: | | | |
|---|---|---|---|
| HSP AND SUP | 55 | 1.87 | * |
| HSP AND ESP | 66 | .94 | NS |
| HSP AND TED | 64 | 2.07 | * |
| SUP AND ESP | 65 | .91 | NS |
| SUP AND TED | 63 | .11 | NS |
| ESP AND TED | 74 | 1.09 | NS |

ITEM #30

| BETWEEN: | | | |
|---|---|---|---|
| HSP AND SUP | 55 | .71 | NS |
| HSP AND ESP | 66 | .77 | NS |
| HSP AND TED | 65 | 1.60 | NS |
| SUP AND ESP | 65 | .19 | NS |
| SUP AND TED | 64 | .96 | NS |
| ESP AND TED | 75 | .71 | NS |

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